

ABSTRACT

The present invention aims at finding out and effectively displaying that different genes give the same expression for having the same function at one time point but give different expressions at another time point for having different roles. Furthermore, the present invention aims at automatically extracting brief groups of clusters from the clustering results of gene expression pattern data so that a user can select a desirable level of grouping.

The present invention comprises the steps of: designating a time segment in the time sequential expression pattern data of multiple genes; and clustering the time sequential expression pattern data within the designated time segment based on a predetermined reference value, repeating clustering within the same cluster in a forward or reverse direction along the time axis while changing the reference value, and displaying the results according to a predetermined display format. The present invention also comprises a step of displaying a round number of the cluster groups for each clustering phase, taking a recognition error range in consideration, from the results of the clustering analysis of the gene expression pattern data. The results of clustering analysis are displayed such that only gene groups consisting of at least a predetermined number of gene expression pattern data are displayed.

ABSTRACT OF THE DISCLOSURE

METHOD AND APPARATUS FOR DISPLAYING GENE EXPRESSION

The present invention discloses a method for displaying gene expression patterns of multiple genes that change according to the experiment cases, where a first axis represents the genes and a second axis represents the experiment cases. The method comprises two steps. The first step consists of designating a segment along the second axis in the expression pattern data of the multiple genes. The second step comprises clustering the expression pattern data within the designated segment along the second axis based on a predetermined reference value, repeating clustering within the same cluster in a forward or reverse direction along the second axis while changing the reference value, and displaying the results according to a predetermined display format.